

MEDVEDEVA, N.B., prof.

Effect of stimulants of the vegetative nervous system on the chemical composition of tissues. Medych.zhur. 16:104-110 '47. (MIRA 10:12)

1. Z Institutu klinichnoi fiziologii AN URSR (direktor - akad. O.O. Bogomolets' [deceased]). 2. Chlen-korespondent AN URSR.
(TISSUES) (VASOMOTOR DRUGS)

Medvedeva, Nina B.

Hormone of rest. Nina Medvedeva (Inst. Expt. Biol. Pathol., Kiev, U.S.S.R.): *Endocrinol. 1948*. Cortisol is a true hormone which is excreted from the adrenal cortex by interaction with acidulated H₂O. The substance is opoid with Na stearate. On percutaneous injection it causes a marked fall in blood pressure and severe hypoglycemia which, unlike insulin hypoglycemia, never leads to convulsions. The prep. is devoid of any type specificity. Its principal function is to increase the synthetic processes of carbohydrate metabolism. Since it does not cause any increase in lactic or keto acid in the blood, it does not apparently affect the glycolysis. But it reduces oxidation (sugar?) since under its influence the production of CO₂ is markedly decreased. Under its influence the glycogen of tissues in normal animals is increased; in rats the liver and muscle glycogen content was doubled. The resynthesis of glycogen in working muscles is accelerated, and this is found even in adrenalectomized animals in which the muscle is incapable of resynthesizing the used up glycogen. The phosphagen content of various tissues is increased in treated animals. That of the heart and liver is about doubled. Whereas the phosphagen content of muscle or liver decreases during fatigue and barely returns to the resting level after 1 hr. repose, in animals treated with the cortisol the synthesis during the phase of repose is several times higher than in an untreated animal. Similarly the hexose phosphate concn. in heart, muscle and intestine is reduced to about one half or less in adrenalectomized rats, but is increased (25 to 50%) in rats treated with cortisol. Here again, the hexose phosphate concn. is greatly decreased during work, but if cortisol is administered before work the concn. in fatigued animals is 3 to 5 times as large as in the fatigued untreated animals. Protein metabolism is practically unaffected by cortisol. Its action differs from that of the cortical steroids in that it has no influence

on salt or water metabolism. Its only known function is the synthetic phase of carbohydrate metabolism, and its important role is the reparation during muscle work.

S. Morgulis

MEDVEDEVA, N.B.

MEDVEDEVA, N.B.

Effect of the glands of internal secretion on the level of organic
ethers of phosphoric acid in the tissues. Medych.zhur. 19 no.1:
22-30 '49. (MIRA 10:12)

1. Z viddilu patologichnoi khimii Institutu eksperimental'noi biologii
i patologii im. akad. O.O.Bogomol'tsya Ministerstva okhoroni zdorov'ya
URS (direktor - prof. O.O.Bogomolets'). 2. Chlen-korespondent AN URSR.
(ENDOCRINE GLANDS) (ADENOSINETRIPHOSPHORIC ACID)

MEDVEDEVA, N. B.

Connective Tissues

Modification of activity of the physiological system of connective tissue and its autocatalytic regulation depending upon age. Medyoh. zhur. 20, no. 4, 1950.

Monthly List of Russian Accessions, Library of Congress, August 1952 UNCLASSIFIED.

MEDVEDYEVA, N.B., professor, chlen-korrespondent Akademiyi nauk Ukrayins'koyi RSR,
savidsnach; BOHOMOLET'S', O.O., professor, dyrektor.

Mechanism of the autocatalytic regulation of the function of connective tissue.
(MLBA 6:10)
Medych.shur. 21 no.4:58-61 '51.

1. Viddil patokhimiyyi Instytutu eksperymental'noyi biolohiyi i patolohiyi
im. akad. O.O.Bohomol'taya MOZ URSR (for Medvedyeva). 2. Instytut ekspery-
mental'noyi biolohiyi i patolohiyi im. akad. O.O.Bohomol'taya MOZ URSR (for
Bohomolets'). (Connective tissues)

MEDVEDEVA, N.B.

MEDVEDEVA, N.B., prof.

Mode of action of an autogenous catalyst on the physiological system of the connective tissue. Report No.3: Effect of an autogenous catalyst during drug-induced sleep. Medych.zhur. 22 no.2:22-25 '52.

1. Z Institutu eksperimental'noi biologii i patologii im. akad. O.O.Bogomol'tsaya Ministerstva okhoroni zdorov'ya URSS (direktor - prof. O.O.Bogomolets'). 2. Chlen-korespondent AN URSS (for Medvedeva)
(SLEEP) (PHAGOCYTOSIS) (TISSUE EXTRACTS)

MEDVEDYEVA, N.B.

Reactivity of certain hormones during sleep induced by medication. Medych.
zhur. 22 no.6:27-29 '52. (MLRA 6:10)

1. Instytut eksperymental'noyi biologiyi i patologiyi im. akad. O.O.Bohomol'-
tsya. (Sleep) (Hormones)

MEDVEDEVA, N. B.

USSR/Medicine - Physiology

FD 246

Card 1/1

Author : Yermakov, N. V. and Medvedeva, N. B.

Title : Effect of various factors on rhythmic activity of the skeletal muscle in a solution of barium chloride

Periodical : Fiziol.zhur. 2, 191-197, Mar/Apr 1954

Abstract : The rate of rhythmic activity, produced by immersion of the gastrocnemius muscle of frog in BaCl_2 solution, is increased in the early phases after denervation (up to 5 days) and tenotomy (up to 8 days). The latent period from immersion to the beginning of rhythmic activity decreases with concentration between $m/8$ and $m/512$ BaCl_2 , but the amplitude and frequency of the rhythmic activity is lower at the weaker concentrations from $m/64$ to $m/512$. This is in part an osmotic effect, since addition of glucose to $m/64$ BaCl_2 to equal the osmotic pressure of $m/16$ BaCl_2 has much the same effect as increase of the BaCl_2 concentration. Adrenalin in a concentration of 10^{-4} to 10^{-5} shortens the latent period in preparations with long latent period in the control muscles, while it lengthens the latent period in preparations with short latent period. Five tables, two illustrations. Eleven references, all USSR.

Institution : Department of Physiology, Institute of Experimental Biology and Pathology imeni A. A. Bogomolets, Kiev

Submitted : August 27, 1952

MEDVEDEVA, N.B.

Data on prerevolution investigations of the appendix cerebri
by Russian scientists. Medych.zmur.24 no.4:72-85 '54.(MLRA 8:10)

1. Institut fiziologii im. O.O. Bogomol'tsya Akademii nauk URSR
(PITUITARY GLAND,
hist. of research in Russia)

MEDVEDEVA, Nina Borisovna; VOROB'YEV, A.M., redaktor; SNEZHIN, M.I.,
redaktor; BAKHLINA, N.P., tekhnicheskii redaktor.

[Normal and pathological physiology of fat and lipid metabolism]
Normal'naiia i patologicheskaiia fiziologiya zhirovogo i lipoidnogo
obmena. Kiev, Izd-vo Akad.nauk UkrSSR. 1955. 363 p. (MLRA 8:9)

1. Chlen-korrespondent AN USSR (for Vorob'yev).
(Fat metabolism)

MEDVEDEVA, N.B., professor

Vladimir Petrovich Filatov: on his 80th birthday. Fiziol.zhur.
[Ukr.] 1 no.2:3-6 Mr-Apr '55. (MLRA 9:9)

1. Chlen-korrespondent AN URSR.
(FILATOV, VLADIMIR ISTROVICH, 1875-)

MEDVEDEVA, N.B.

Theory of the reactive changes in the adrenal cortex. *Fiziol.zhur.*
[Ukr.] 1 no.2:134-139 Mr-Apr '55. (MIRA 9:9)

1. Institut fiziologii imeni akademika O.O.Bogomol'tsya Akademii
nauk USSR.
(ADRENAL GLANDS)

BOGOMOLETS, Aleksandr Aleksandrovich, akademik, Geroy Sotsialisticheskogo Truda; GOREV, N.M., redaktor; KAVETSKIY, R.Ye., otvetstvennyy redaktor; MAKARCHENKO, A.F., professor, redaktor; MEDVEDEVA, E.B., redaktor; SIROTIHIN, N.N., redaktor; SNEZHIN, M.I., redaktor izdatel'stva; RAKHLINA, N.P., tekhnicheskiy redaktor

[Selected works in three volumes] Izbrannye trudy; v trekh tomakh. Kiev, Izd-vo Akademii nauk USSR. Vol. 1. 1956. 282 p. (MLRA 9:10)

1. Deyatvitel'nyy chlen AMN SSSR (for Gorev) 2. Deyatvitel'nyy chlen AN USSR (for Kavetskiy). 3. Chlen-korrespondent AN USSR (for Medvedeva, Sirotinin)
(PHYSIOLOGY, PATEOLOGICAL)

MARCHUK, P.D., otvetstvennyy redaktor; BOGOMOLET'S, O.A., redaktor; KAVETSKIY, P.Ye., redaktor; KOROL', S.A., redaktor; LEVCHUK, G.A., redaktor; MEDVEDEVA, N.B., redaktor; GITSHEYN, A.D., tekhnicheskiiy redaktor

[Cytotoxins in modern medicine; a collection of works commemorating the 75th birthday of Academician A.A.Bogomolets] TSitotoksiny sovremennoi meditsiny; sbornik rabot, posviashchennyi 75-letiiu so dnia rozhdeniia akademika A.A.Bogomol'tsa. Kiev, Gos. med. izd-vo USSR, 1956. 329 p. (MLRA 9:11)

1. Ukraine. Ministerstvo zdavookhraneniya.
(SERUM)

MEDEVEDEVA, N.B.

PORTNOV, A.I. otvetstvennyy redaktor; KNIZHKO, P.O., redaktor; KRAMARENKO, V.F., redaktor; NAUMENKO, M.A., redaktor; PIVNENKO, G.P., redaktor; ROZENBERG, M.A., redaktor; SAVITSKIY, I.V., redaktor; TROTSSENKO, A.G., redaktor; SHELUD'KO, V.M., redaktor; VAYSMAN, G.A., redaktor; MEDVEDEVA, N.B., redaktor; GIMSHTYIN, A.D., tekhnicheskii redaktor

[Problems in pharmacy; a collection of scientific papers from pharmaceutical schools of the Ukraine] Nekotorye voprosy farmatsii; sbornik nauchnykh trudov vysshikh farmatsevticheskikh uchebnykh zavedenii Ukrainskoi SSR. Kiev, Gos. med. izd-vo USSR, 1956. 366 p. (MLRA 10:5)

1. Ukraine. Ministerstvo zdravookhraneniya.
(PHARMACY)

MEDVEDEVA, N.B.

Oleksandr Oleksandrovich Bohomolets'; on the 75th anniversary of his
birth. Fiziol.zhur. (Ukr.) 2 no.3:5-13 My-Je '56. (MLRA 9:10)
(BOHOMOLETS, OLEKSANDR OLEKSANDROVICH, 1881-1946)

MEDVEDEVA, N. B.

V. Medvedeva, N. B.; Ermakov, N. V.; Kmit, G. I. and Bobok, T. E. Vlianie letnikh klimaticeskikh uslovii leta Ukrainy na organizm kolhoznikov v period raboty. [Effect of summer climate conditions of the southern Ukraine upon members of collective farms during work.] *Gigiena i Sanitariya*, Moscow, 21(4):15-22, April 1956. 2 figs., table, refs. DLC—The effect of the hot dry steppe climate prevailing in the southern Ukraine upon 440 working farmers was studied experimentally by examining the variations of the following physiological characteristics: body and skin temperatures, sweat production on the forehead, on the chest and on the back, pulse rate and blood pressure. The observations on the relationship between skin temperature and weather type blood pressure, air temperature and on skin temperature, sweat production and body temperature during different types of weather are presented in graphs and in a table. *Subject Headings:* 1. Physiological climatology 2. Heat effects on man 3. Body temperature 4. Skin temperatures 5. Ukraine.—J.L.D.

BOGOMOLETS, Aleksandr Aleksandrovich; KAVETSKIY, P.Ye., otvetstvennyy red.;
BOGOMOLETS, O.A., prof., red.; GOREV, M.H., red.; MAKARCHENKO, A.F.,
red.; MEDVEDOVA, N.B., red.; SIROVININ, N.H., red.; SHEZHIN, M.I.,
red. izd-va; RAKHLINA, N.P., tekhn. red.

[Selected works in three volumes] Izbrannye trudy v trekh tomakh.
Kiev, Izd-vo Akad. nauk USSR, Vol.2. 1957. 477 p. (MIRA 11:10)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for
Gorev, Sirotinin). 2. Deystvitel'nyy chlen Akademii USSR (for
Kavetskiy). 3. Chlen-korrespondent Akademii nauk USSR (for
Makarchenko, Medvedeva).

(PHYSIOLOGY, PATHOLOGICAL)

MEDVEDEVA, N. B.

BOGOMOLTS, Aleksandr Aleksandrovich; KAVETSKIY, R.Ye., akademik, otv.
red.; BOGOMOLETS, O.A., prof., red.; GOREV, N.N., red.;
MAKARCHENKO, A.F., red.; MEDVEDEVA, N.B., red.; SIROVININ,
N.N., red.; SNEZHIN, M.I., red. izd-vo; RAKHLINA, N.P., tekhn.
red.

[Selected works in three volumes] Izbrannye trudy v trekh
tomakh. Kiev, Izd-vo Akad.nauk USSR. Vol.3. 1958. 358 p.
(MIRA 13:1)

1. AN USSR (for Kavetskiy). 2. Deystvitel'nyye chleny AMN SSSR
(for Gorev, Sirotinin). 3. Chleny-korrespondenty AN USSR (for
Makarchenko, Medvedeva).
(MEDICINE)

KOMISSARENKO, V.P., akademik, otv.red.; VALUYEVA, T.K., kand.med.nauk, red.; IVANOV, V.I., akademik, red.; KAVETSKIY, R.Ye., akademik, red.; MAKARCHENKO, A.F., prof., red.; MEDVEDEVA, M.B., red.; FOL'BORT, G.V., akademik, red.; SNEZHIN, M.I., red.izd-va; MILEKHIN, I.D., tekhn.red.

[Mechanism of hormone action] Mekhanizm deistviia gormonov. Pod red. V.P.Komissarenko. Kiev, 1959. 263 p. (MIRA 12:8)

1. Akademiya nauk USSR, Kiyev. Institut fiziologii. 2. AN USSR (for Komissarenko, Ivanov, Kavetskiy, Fol'bort). 3. Chlen-korrespondent AN USSR (for Makarchenko, Medvedeva). 4. Institut fiziologii im. A.A.Bogomol'tsa AN USSR (Kiyev) (for Komissarenko, Valuyeva).

(HORMONES)

MARCHUK, P.D., otv. red. (Kiyev); BOGOMOLETS, O.A., red. (Kiyev);
KAVETSKIY, R.Ye., red. (Kiyev); KOROL', S.A., red. (Kiyev);
LEVCHUK, G.A., red.; MEDVEDEVA, N.B., red.; GITSHTEYN, A.D.,
tekh. red.

[Cytotoxins in present day medicine] TSitotoksiny v sovremen-
noi meditsine. Kiev. Gos. med. izd-vo USSR. Vol.2. 1960. 332 p.
(MIRA 15:3)

1. Ukraine. Ministerstvo zdravookhraneniya.
(SERUM)

MAL'KOVA, T.V.; MEDVEDEVA, N.D.; YATSIMIRSKIY, K.B.

Complex compounds of aluminum with methylthymol blue. Zhur.
neorg. khim. 9 no.10:2347-2353 O '64.

(MIRA 17:12)

1. Ivanovskiy khimiko-tehnologicheskii institut.

KRUPATKIN I. I.; MEDVEDEVA, N. D.

Demixing ternary systems with three components. Part 1
prevailing system is irrational. Zhur. ob. khim. 34. 5
1979-1980. My '04. 1980. 17-18.

1. Ivanovskiy Khimiko-Tekhnologicheskii Institut.

MAL'KOVA, T.V.; MEDVEDEVA, N.D.; YATSIMIRSKIY, I.P.

Study of the kinetics of the interaction of aluminum ions with
the methylthymol blue indicator. Zhur. neorg. khim. 10 no.1:
72-76 Ja '65. (MIRA 18:11)

I. Ivanovskiy khimiko-tekhnologicheskii institut. Submitted
April 13, 1964.

MEDVEDEVA, N. I.

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of
Natural Gases and Petroleum. Motor Fuels. Lubricants,
I-13

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62586

Author: Medvedeva, N. I., Torsuyeva, Ye. S.

Institution: None

Title: Chromatographic Method of Separation of the Cracking Products of
Hydrocarbons

Original

Periodical: Tr. komis. po analit. khimii AN SSSR, 1955, 6, 88-96

Abstract: Effected was a separation of gaseous hydrocarbons ($\text{CH}_4 + \text{C}_2\text{H}_6 + \text{C}_2\text{H}_4 + \text{C}_3\text{H}_8 + \text{C}_3\text{H}_6$) by a thermochromatographic method which consists in a concurrent movement of a furnace with different heating zones and of a current of "solvent" (air, nitrogen) along an adsorption column, upon which is deposited the mixture to be separated. At the exit from the column the individual components of the mixture were recorded by a gas interferometer. The method used makes it possible

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USSR/Chemical Technology - Chemical Products and Their Application. Treatment of
Natural Gases and Petroleum. Motor Fuels. Lubricants,
I-13

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62586

Abstract: to separate even mixtures containing a large excess of one of the components. By combining the chromatographic method with a radio-chemical it is possible to check the purity of individual components after the separation of the hydrocarbon mixture, for which purpose each hydrocarbon is burned separately to CO_2 which is converted to BaCO_3 and from the latter samples are prepared for measuring the activity by means of a counter. Diagrams and descriptions are given of units for a thermochromatographic separation of hydrocarbons and also of the volumetric chromatographic separation proposed by D. A. Vyakhirev.

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Medvedeva, N. I.

133-10-13/26

AUTHOR: Semchenko, O. A., Baybuz, A. N., Medvedeva, N. I. and
Azarov, A. T., Engineers.

TITLE: Heating of Alloyed Steel Ingots in Recuperative Soaking Pits.
(Progreiv Legirovannogo Slitka v Rekuperativnykh Kolodtsakh)

PERIODICAL: Stal', 1957, No.10, pp. 915-917 (USSR). /- 17

ABSTRACT: An investigation of the distribution of temperatures across ingots and the differences between indicated and actual temperatures of metal during heating in recuperative soaking pits is described. Heating of ingots of uX15 and uX15Cr steels as well as some other high carbon alloy steels was unsatisfactory, namely axial overheating of the ingot was observed. The investigations indicated that the existing practice of heating up to $1230-1210^{\circ}\text{C}$ was incorrect, the limiting temperature was found to be $1160-1180^{\circ}\text{C}$. There are 3 figures.

ASSOCIATION: Dneprospetsstal' Works. (Zavod Dneprospetsstal').

AVAILABLE: Library of Congress

Card 1/1

MEDVEDEVA, N. I.

AUTHOR

NEYMAN M.B., MEDVEDEVA, N.I. 20-2-42/62
and TORSUYEVA, Ye. S.

TITLE

The Kinetic Method of the Use of Tagged Atoms in
Propane Cracking Research
(Kineticheskiy metod primeneniya nechenykh atomov pri
issledovanii krekinga propana)
Doklady Akademii Nauk SSSR 1957, Vol 115, Nr 2, pp 347-
350 (U.S.S.R.)

PERIODICAL

ABSTRACT

According to present conceptions the reactions of thermal decomposition of hydrocarbons are chain reactions which take place under participation of free radicals. It is known that the main products of propane cracking are: methane, ethylene, hydrogen and propylene. Ethane develops in small amounts. A system according to the Rice theory is given. The method of labeled atom makes it possible to answer the question whether the mentioned cracking products are final or whether they are subject to further transformations. In this connection some conclusions can be drawn on the mechanism of cracking. This paper studies the behaviour of ethylene developing on this occasion. The employment of the method mentioned in the title makes it possible to determine the order of formation of certain products from others, the speeds

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Propane Cracking Research

of formation and consumption of individual reaction products, and it further makes possible to estimate the concentrations of intermediate products and radicals on the basis of knowledge of the speeds of elementary processes. The cracking of propane was studied under static conditions. Labeled ethylene $C^{14}_2H_4$ was added to the initial propane. The cracking products were separated by the chromatographic method and burned with the exception of CO_2 which was caught by means of barite water. Ill.1 records the kinetic decomposition curves of propane (together with 0.5 ethane and 1% labeled ethylene) at various temperatures. The activation energy of the total process of cracking amounts to 68.000 cal./mol for a 3% transformation of propane and to 72.500 cal./mol for a 14% transformation. The radiometric analysis shows that ethane, besides ethylene, also possesses a high specific activity. Ill.2 shows the change of this activity of both substances with the degree of transformation for 3 test series at various temperatures. The specific activity of ethylene decreases due to dilution of labeled ethylene by inactive ethylene developed in cracking. Ill. 3 shows the relation between

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the amount of ethylene transformed in the course of the reaction and the amount of ethane developed. Curve 2 records the accumulation of ethylene, curve 3 the accumulation of ethane during the experiment. The amount of ethylene transformed - the difference between curves 1 and 2 - corresponds to the resulting quantity of ethane within the limits of the precision with which the quantities of ethane and ethylene were measured, and the balance of the activity of the introduced ethylene and of the active cracking products is equal. This confirms the chief formation of ethane from ethylene and not from a recombination of methyl radicals as it was hitherto supposed. There are signs that other products may also be obtained from ethylene in more farreaching stages of cracking. A way of formation of ethane from ethylene is represented by reaction schemata. The estimations made in this paper of the concentrations of radicals and atoms in the reaction zone indicate that there exist possibilities of further development of this method

CARD 3/4

S/062/60/000/010/020/031/XX
B002/B060

AUTHORS: Medvedeva, N. I. Neyman, M. B., Torsuyeva, Ye. S.
TITLE: Rate of Thermal Decomposition of Ethane Under Conditions
of Equilibrium and Far From Equilibrium
PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1960, No. 10, pp. 1759-1762

TEXT: The authors attempted to measure the rates of reaction and back-
reaction $C_2H_6 \rightleftharpoons C_2H_4 + H_2$. Determinations were made at 554° (146 mm Hg) ✓
and $600^\circ C$ (142 mm Hg). A mixture in equilibrium, consisting of ethane, hy-
drogen, and C^{14} -tagged ethylene, was filled in a quartz vessel; at certain
intervals, the reaction products were determined by gas chromatography,
and their activity was measured. Thence, the decomposition rate w_{equ} was
calculated at equilibrium for ethane. The values of w_{equ} are not constant,
but drop slightly. This was explained by the formation of such side prod-
ucts as methane, propylene, and higher hydrocarbons. The w_{equ} values meas-
ured at the beginning of reaction are, therefore, to be preferred; they

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Rate of Thermal Decomposition of Ethane Under S/062/60/000/010/020/031/XX
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librium

amount at 600°C to 0.66 mm Hg/min, and at 554°C to 0.096 mm Hg/min. De-
composition of pure ethane was also investigated. According to V. V.
Voyevodskiy's suggestion, w_{equ} should be smaller than w , the reaction rate
prior to equilibrium, if the reaction proceeds by the chain mechanism.
However, w_{equ} at 554°C is larger, and at 600°C smaller than w . The cri- ✓
terion is, therefore, not sufficiently sensitive, since the reaction un-
doubtedly proceeds by the chain mechanism. The authors thank V. V.
Voyevodskiy for a discussion. There are 4 figures, 6 tables, and 4 refer-
ences: 3 Soviet and 1 British.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR
(Institute of Chemical Physics of the Academy of Sciences
USSR)

SUBMITTED: June 6, 1959

Card 2/2

S/076/60/034/012/014/027
B020/B067

AUTHORS: Medvedeva, N. I., Neyman, M. B., Torsuyeva, Ye. S., and Kravchuk, I. P.

TITLE: Kinetic Method of Using Labelled Atoms in the Study of Complex Chemical and Biochemical Processes. X. Study of the Rates of Formation and Consumption of Ethylene in the Cracking of Propane

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 18, pp. 2780-2788

TEXT: Fig. 1 shows the scheme of a vacuum device for propane cracking, which was made under static conditions in a quartz reaction vessel. The reaction vessel was inserted into a horizontal tube furnace. The temperature of the furnace was controlled by a calibrated chromel-alumel thermocouple. Propane to which labelled ethylene $C_2^{14}H_4$ had been added was cracked and was synthesized from propylbromide via an organic magnesium compound. It contained 0.5% ethane and 1% propylene. The ethylene labelled

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Kinetic Method of Using Labelled Atoms in the Study of Complex Chemical and Biochemical Processes. X. Study of the Rates of Formation and Consumption of Ethylene in the Cracking of Propane

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with radioactive carbon C^{14} was produced from $BaC^{14}O_3$. A chromatographic column filled with MCM-1 (MSM-1) silica gel was used to isolate the reaction products. Fig. 3 shows the characteristic separation curves of the cracking products of propane: the time or the proportional amount of nitrogen which has passed through the column were plotted along the axis of abscissas, the values read from the interferometer were plotted along the axis of ordinates. The maximum measuring error was 10-15%. By means of the method described the authors studied the cracking of propane by adding labelled ethylene up to a 20-25% conversion at 580, 554, 532, and 510°C. Fig. 4 shows the kinetic curves of the decomposition of propane with a content of 0.5% of ethane and 1% of labelled ethylene at four temperatures. The activation energy of the entire propane cracking process increases from 65,500 cal/mole with a 3% conversion to 72,500 cal/mole with 17% conversion. Fig. 6 shows the change of the specific activity of ethylene (Curve 1) and ethane (Curve 2) with the degree of cracking for four experimental series at different temperatures. Table 1 gives data on

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Kinetic Method of Using Labelled Atoms in the
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Processes. X. Study of the Rates of Formation and
Consumption of Ethylene in the Cracking of Propane

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the activation balance at 580, 554, 532, and 510°C. Fig. 7 graphically illustrates the experimental curves of the accumulation of ethylene (1) and ethane (2) in the course of thermal decomposition of propane. Table 2 gives the rates of formation of ethane from ethylene in millimoles per second which were calculated from the equation $w = (1/\alpha)(dI_{C_2H_6}/dt)$ (2), where w is the rate of formation of ethane from ethylene, α the specific activity of ethylene, and $I_{C_2H_6}$ the total activity of ethane. The rate of accumulation of ethane during the reaction was experimentally determined and found to be equal to the rate of formation of ethane from ethylene which was calculated by the kinetic method (Table 3). Fig. 8 shows the rates of formation of ethylene w_1 calculated from four experimental series at different temperatures and without consideration of the ethylene consumption during the reaction. Fig. 9 shows that the temperature course of the initial rates of formation of ethylene leads to an activation energy of this process of $E = 62,500$ cal/mole. Table 4 shows the concentrations of n-propyl radicals at 580°C. The equation

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Kinetic Method of Using Labelled Atoms in the Study of Complex Chemical and Biochemical Processes. X. Study of the Rates of Formation and Consumption of Ethylene in the Cracking of Propane

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B020/B067

$$w_2 = w = f k_0 e^{-E/RT} [C_2H_4] [H^*]$$

was given for the consumption of ethylene, where the values of H^* at 580° with $f = 0.01$, $k_0 = 10^{-10} \text{ cm}^3 \text{ sec}^{-1} \text{ mole sec}^{-1}$ and $E = 5,000 \text{ cal/mole}$ are given in Table 5. A. V. Frost, A. D. Stepukhovich, and S.Z. Roginskiy are mentioned. There are 9 figures, 5 tables, and 15 references: 13 Soviet and 2 US.

ASSOCIATION: Akademiya nauk SSSR, Institut khimicheskoy fiziki (Academy of Sciences of the USSR, Institute of Chemical Physics)

SUBMITTED: March 26, 1959

Card 4/4

MEDVEDEVA, N.I.; NEYMAN, M.B.; TORSUYEVA, Ye.S.

Kinetic tracer method in the study of the mechanism of complex chemical and biochemical processes. Part 11: Rate of formation and consumption of propylene in the cracking of propane. Zhur.-fiz.khim. 36 no.5:1016-1021 My '62. (MIRA 15:3)

1. Institut khimicheskoy fiziki AN SSSR.
(Propene) (Propane) (Cracking process)

MEDVEDYUK, Nikolay Ivanovich; NARYSHKIN, A.A., nauchn. red.;
MAKSIMOVA, Yu.M., red.

[Metal fitting and sheet-metal work] Slesarno-zhestianitskie
raboty. Izd.5., perer. i dop. Moskva, Vysshaya shkola,
1965. 374 p. (MIRA 18:8)

MEDVEDEVA, N. I.

"Injuries of the Menisci of the Knee Joint." Min Public Health RSFSR, Leningrad Sci Res
Inst of Traumatology and Orthopedics, Leningrad, 1955
(Dissertation for the Degree of Candidate of Medical Sciences)

SO: Knizhnaya Letopis', No. 32, 6 Aug 55

MEDVEDEVA, N.I.

Late results of treatment for injury to the meniscus of the knee joint. Trudy Len.gos.nauch.-issl.inst.travn. 1 ortop. no.7:120-128 '58. (MIRA 13:6)

1. Iz otdeleniya neotlozhnoy travmatologii Leningradskogo gosudarstvennogo nauchno-issledovatel'skogo instituta travmatologii i ortopedii.

(KNEE---WOUNDS AND INJURIES)

MEDVEDEVA, N.I.

Late results of surgical treatment of long-standing and irreducible dislocations of the elbow joint [with summary in English].
Khirurgiia 34 no.2:77-82 F '58. (MIRA 11:4)

1. Iz otdeleniya neotlozhnoy travmatologii (zav. - S.Ye.Kashkarov)
Leningradskogo instituta travmatologii i ortopedii (dir. - prof.
V.S.Balakina)

(ELBOW, disloc.

long-standing & irreducible disloc., results of surg.

(Rus))

BALAKINA, V.S.; MEDVEDEVA, N.I.

Treatment of diaphysial fractures of the shin bone. Vest. khir. 85
no. 8:101-108 Ag '60. (MIRA 14:1)

(TIBIA—FRACTURE) (FIBULA—FRACTURE)

BELAKINA, V.S.; MEDVEDEVA, N.I.; GRIBENNIK, Ye.V.

Combined anesthesia in operations on the extremities. Trudy Len.gos.
nauch.-issl.inst.travm.i ortop. no.8:16-24 '61. (MIRA 15:9)
(EXTREMITIES (ANATOMY)--SURGERY)

MEDVEDEVA, N.I.

Diaphyseal fractures of the bones of the shin and their treatment.
Trudy Len.gos.nauch.-issl.inst.travm.i ortop. no.8:89-97 '61.
(MIRA 15:9)
(TIBIA—FRACTURE) (FIBULA—FRACTURE)

MEDVEDEVA. N.I.

Osteoplasty with homotransplants preserved in paraffin. Vest. khir. 91
no.11:76-79 N '63. (MIRA 17:12)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta travmatologii
i ortopedii (direktor - prof. V.S.Balakina). Adres avtora: Leningrad,
park imeni Lenina d. 5. Leningradskiy institut travmatologii i ortopedii.

MEDVEDEVA, N.I.

Metal osteosynthesis with external protrusion of the nail.

Vest. khir. no.10:70-74 '64.

(MIRA 19:1

1. Iz otdeleniya travmatologii (zav. - S.Ye. Kashkarov) Leningradskogo instituta travmatologii i ortopedii (dir. - prof. V.S. Balakina).

SHEMYAKIN, F.M.; KARPOV, A.N.; MEDVEDEVA, N.K.; DOBRYNINA, V.I., dotsent, direktor.

Chromatograms of vegetable extracts. Apt.delo 2 no.3:19-22 My-Je '53.
(MLBA 6:6)

1. Moskovskiy farmatsevticheskiy institut Ministerstva zdravookhraneniya
SSSR, (Extracts) (Chromatographic analysis)

MEDVEDEVA, N.K.

5
③
/ Chromatography of alkaloid reactions. F. M. Shemyakin, A. W. Karlov, and N. K. Medvedeva (*Dokl. Akad. Nauk. SSSR*, 1953, 80, 399—402).—The various standard reactions for alkaloids are much more specific if carried out chromatographically in a column (Al_2O_3) or on paper. The reactions of morphine, with HNO_3 , H_2SO_4 , $+HNO_3$, H_2SO_4 , $+NH_4$ vanadate, $FeCl_3$, ammoniacal Ce nitrate (very strong coloration), of codeine with HNO_3 , H_2SO_4 , $FeCl_3$, and Fricke's reagent, and various methods of determining both alkaloids in a mixture, are described.
R. C. MURRAY.

SHEMYAKIN, F.M.; MEDVEDEVA, N.K.

Possibility of the chromatographic control of the infusion of medicinal plants. Sbor. nauch. rab. MFI 2:83-86 '59.

(MIRA 14:1)

1. Kafedra analiticheskoy khimii (zav. - prof. F.M. Shemyakin)
Moskovskogo farmatsevticheskogo instituta.
(BOTANY, MEDICAL) (CHROMATOGRAPHIC ANALYSIS)

MEDVEDEVA, N.K.

Revealing geobotanical investigations of the "Shugul'" salt dome
in the northern Caspian Sea region. Biul.MOIP.Otd.geol. 36
no.6:128-129 N-D '61. (MIRA 15:7)
(Caspian Sea region--Salt domes)

REZANOV, I.A.; NGO TKHYONG SHAN; SHEYNMANN, Yu.M.; RATS, M.V.; KRUG, O.Yu.;
ZYRYANOV, V.N.; RAKCHEYEV, A.D.; YAKOVLEVA, Ye.B.; PETROVA, M.A.;
PETROV, Yu.I.; KUZNETSOV, Ye.A.; YUDINA, V.V.; BARDINA, N.Yu.;
SIMANOVICH, I.M.; ATANSYAN, S.V.; SERGEYEVA, A.M.; PARFENOV, S.I.;
RUTKOVSKI, Ya'sek [Rutkowski, Jacek]; MAKHLINA, M.Kh.; ZVEREV, V.P.;
TERNOVSKAYA, V.T.; SAMOYLOVA, R.B.; YERMAKOVA, K.A.; BYKOVA, N.K.;
MEYYEN, S.V.; BARSKOV, I.S.; IL'INA, L.B.; BABANOVA, L.I.;
DOLITSKAYA, I.V.; GORBACH, L.P.; BUTS'KO, S.S.; TRESKINSKIY, S.A.;
SVOZDETSKIY, N.A.; PRYALVKHINA, A.F.; GROSVAl'D, M.G.; MODEL', Yu.M.;
GORYAINOVA, I.N.; MEDVEDEVA, N.K.; MYALO, Ye.G.; DOBROVOL'SKIY, V.V.;
KHOROSHILOV, P.I.; CHIKISHEV, A.G.

Brief news. Biul. MOIP. Otd. geol. 40 no.3:122-154 My-Je '65.
(MIRA 18:8)

VOSKRESENSKIY, S.S.; POSTOLENKO, G.A.; SIMONOV, Yu.G.; PATYK-KARA,
N.G.; ANAN'YEV, G.S.; PIMENOVA, R.Ye.; YEVTEYEVA, I.S.;
KUZNETSOVA, L.T.; SOROKINA, Ye.P.; ZORIN, L.V.;
SLADKOPEVTSEV, S.A.; ARISTARKHOVA, L.B.; MEDVEDEVA, N.K.;
LOPATINA L.I., red.

[Geomorphological studies; work experience in southeastern
Transbaikalia, eastern Fergana, central Kazakhstan, and
the Caspian Lowland] Geomorfologicheskie issledovaniia;
opyt rabot v Iugo-Vostochnom Zabaikal'e, Vostochnoi Fergane,
TSentral'nom Kazakhstane i Prikaspiiskoi nizmennosti. Mo-
skva, Izd-vo Mosk. univ., 1965. 275 p. (MIRA 18:7)

OBUKHOV, V.I.; MEDVEDEVA, N.M.

Selecting the structure of a quasi-balanced bridge circuit
in a control system for chemical processes. Vestsi AN BSSR.
Ser. fiz.-tekh. nav. no.3:138-140 '61. (MIRA 14:10)
(Electrochemistry)

MEDU & DEVA, A. N.

6(0) PHASE I BOOK EXPLORATION 307/2800

USSR. Ministerstvo svyazi. Tekhnicheskoye upravleniye
Soyuznaya po organizatsii pochtoy svyazi; Informatsionnyy sbornik (New Developments in the Organization of Postal Communication; Collection of Information Articles) Moscow, Svyaz'izdat, 1958, 166 p. (Series: Tekhnika svyazi) Kravatskiy inspektor, 8,600 copies printed.

Additional Sponsoring Agency: USSR, Ministerstvo svyazi. Tsentral'nyy nauchno-issledovatel'skiy institut.

Resp. Ed.: A. Ye. Vassinin; Ed.: R. A. Kuz'mina; Tech. Ed.: E. G. Markoch.

PURPOSE: This book is intended for post office workers.

COVERAGE: This collection of articles discusses efforts of the Central Scientific Research Institute of Communications to organize and mechanize work processes in postal service establishments. It describes the organization of postal functions and ways to determine the efficiency of mechanized operations. Some articles discuss future development of the postal services. No personalities are mentioned. There are no references.

Grigor'ev, A. D. Overall Mechanization of Postal Operations 80

Belodubov, M. M. and A. I. Shator. Methods of Calculating the Technical and Economic Efficiency of Mechanization Facilities in Postal Service Establishments 100

Albins, V. A. Installation With Several Degrees of Selectivity for Semi-Automatic Sorting of Parcels 120

Karavay, V. A. Method of Determining the Efficiency of Mechanized Parcel Sorting 130

Kozlovskiy, A. G. and M. D. Mosonovich. System of Organizing and Mechanizing Production Processes for Expediting Periodicals in Large Postal Service Establishments

AVAILABLE: Library of Congress (HE 6837 .885)

Card 4/4

10/10/60
1-6-60

MEDVEDEVA, N.S. (Novosibirsk); SHENYAKIN, Ye.I. (Novosibirsk)

Shock load wave in an underground explosion in rocks. PMTF
no.6:78-87 N-D '61. (MIRA 14:12)

(Explosions)
(Shock waves)

L 20210-65 EWT(1)/EWP(m)/FCS(k)/EWA(h) : pd-1/p1-4 AFWL/SSD/AEDC(a)/
SSD(b)/BSD/ASD(f)-3/ASD(p)-3/AFET(r)

ACCESSION NR: AP4049011

S/0043/64/000/004/0098/6109

AUTHOR: Grib, A. A., Medvedeva, N. S.

TITLE: The damping of shock waves in water

SOURCE: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i
astronomii, no. 4, 1964, 98-109

TOPIC TAGS: hydrodynamics, shock wave, spherical wave, Landau law, wave front

ABSTRACT: Considerable work has been done on the damping of shock waves in air, but there is little information on the same phenomenon in water. The present paper is concerned with the flow behind a weak shock wave in water. In this case, the hydrodynamic equations

$$\frac{\partial u}{\partial t} + u \frac{\partial u}{\partial r} + \frac{1}{\rho} \frac{\partial p}{\partial r} = 0,$$

$$\frac{\partial p}{\partial t} + u \frac{\partial p}{\partial r} + \rho \frac{\partial u}{\partial r} + \frac{u \partial \rho}{r} = 0,$$

$$\rho = B \left[\left(\frac{r}{r_0} \right)^n - 1 \right] \cdot p_0,$$

(1)

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L 20210-65

ACCESSION NR: AP4049011

can be solved approximately. The actual condition imposed on the shock wave is that the Riemann invariants F and f satisfy

$$F_0 \sim \alpha_1, \quad f_0 \sim \alpha_1^2, \quad (2)$$

where $\alpha_1 = \frac{n-1}{2} \frac{p - p_0}{Bn}$, $B = 30 - 45 \text{ kg/cm}^2$, $n = 7.15$ and α_1 is small. In this case, approximating a certain auxiliary function linearly, the equations of hydrodynamics can be solved in the form:

$$r - a_0 t = C + \frac{n+1}{2} k \sqrt{\ln \frac{r}{r_0} + \frac{4}{n+1} \frac{1}{A}}. \quad (3)$$

yielding the law of motion of the wave front. The results of this solution are then utilized to show that the pressure curve at a given point does not coincide with that of the velocities of the particles. The maximal pressure along the wavefront changes with distance according to L. D. Landau's law. Orig. art. has: 7 figures and 61 formulas.

Card 2/3

L 20210-65
ACCESSION NR: AP4049011

ASSOCIATION: Kafedra gidrodinamiki LGU (Department of Hydrodynamics, Leningrad
State University)

SUBMITTED: 15Nov63

ENCL: 00

SUB CODE: ME

NO REF SOV: 006

OTHER: 002

Card

3/3

GRIN, A.I.; MEDVEDEVA, N.S.

Damping of shock waves in water. Vest. LG 19 no.19:98-109 '62.
(MIRA 17:11)

BELICHENKO, I.A.; MEDVEDEVA, N.T.

Significance of transcutaneous hepatocholangiography in the
diagnosis of mechanical jaundice. Vest. rent. i rad. 37
no.5:37-42 S-O '62. (MIRA 17:12)

1. Iz kliniki khirurgicheskikh bolezney (zaveduyushchiy -
zasluzhennyy deyatel' nauki prof. P.L. Sel'tsovskiy [deceased])
i kafedry rentgenologii i radiologii (zaveduyushchiy - prof.
I.A. Shekhter) Moskovskogo meditsinskogo stomatologicheskogo
instituta. Adres avtoraz: Moskva B-76, ulitsa Stromynka, dom
23, kvartira 149.

BRISKIN, B.S., kand. med. nauk; MEDVEDEVA, N.T.

Diagnosis of choledochoduodenal fistulas in peptic ulcer.

Vestn. rentgen. i radiol. 38 no.4:70-71 JI-Ag'63

(MIRA 17:2)

1. 1. Iz kliniki khirurgicheskikh bolezney (zav. - prof. P.L. Sel'tsovskiy [deceased]) i kafedry rentgenologii (zav. - prof. I.A. Shekhter) Moskovskogo meditsinskogo stomatologicheskogo instituta na baze Bol'nitsy No.33 imeni A.A.Ostroumova, Moskva.

MEDVEDEVA, O. A.

"The Results of Introducing New Varieties of Strawberries, Raspberries, and Black Currants in the Northwestern Zone of the USSR." Cand Agr Sci, Leningrad Agricultural Inst, Min Higher Education USSR, Leningrad, 1955. (KL, No 15, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

MEDVEDEVA, O.A.

Motortrucks with individual drives for each wheel. Avt. i trakt.prom.
no.3:46 Mr '56. (MLRA 9:7)
(Motortrucks--Transmission devices)

MEDVEDEVA, O.A., inzhener.

Efficiency work and inventions at the "Mara" factory. Leg.
prom. 17 no.1:47-48 Ja '57. (MLRA 10:2)

(Riga--Textile industry)

USSR/Cultivated Plants - Fruits, Berries.

11-3

Abstr Jour : Ref Zhur - Biol., No 9, 1958, 39502

Author : Medvedeva, O.A.

Inst : Leningrad Fruit-Berry Experiment Station.

Title : The Best Varieties of Raspberries and Strawberries in the Leningrad Oblast.

Orig Pub : Gard. i sverod., 1957, No 6, 54-55.

Abstract : The raspberries and strawberries varieties singled out after testing at the Leningrad Fruit-Berry Experiment Station are described in this paper. The following varieties are recommended for wide testing in addition to the standard ones: for raspberries - Pavlovskaya, Mikail'skaya, Osemnyaya, Vishal'da, Harvest', Hakhodka, Kalininskaya; for strawberries - Severnaya urozhaynaya 6, Slavyanskaya 5, Krupnoplodnaya 41, Sakharistaya 11. -- M.H. Myuzel'tova

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~~MEDVEDEVA P. A.~~
~~MEDVEDENA, P. A.~~

Ushakov, S. N. Gavurina, R. K. and Medvedeva, P. A., Esterfication of polyvinyl-alcohol by dibasic aliphatic acids. P. 1118.

At interaction of polyvinyl alcohol with chloroanhydride and anhydride polymer of adipic acid pyridine, there were obtained esters with various degrees of esterfication, which is determined by the ratio of the initial components.

Chair of Technology of Plastic Masses
Leningrad Technological Institute.
April 1, 1948.

SO: Journal of Applied Chemistry (USSR) 21, No. 11 (1948)

D-7/120-500-1/1

AUTHORS: Gavurina, R.K. (Candidate of Technical Science),
Medvedeva, P.A., Yanovskaya, Sh.G., Shklyar, E.N.,
Dobrer, Ye.K. and Barzilovich, V.M. (Engineers)

TITLE: Cast Insulation based on Cold-hardening Unsaturated
Polyester Resins (Litaya izolyatsiya na osnove nenasy-
shehennykh poliefirnykh smol kholodnogo otverzheniya)

PERIODICAL: Vestnik Elektromyshlennosti, 1958, Nr 8, pp 6-10 (USSR)

ABSTRACT: This article describes work on cast insulation made of
unsaturated polyester resins. The manufacture of the
resins is briefly described. Reference is made to foreign
work on the application of these resins. Soviet resins
type KGMS were described in Vestnik Elektromyshlennosti,
1956, Nr 2. The authors developed and tested casting
compounds based on cold-hardening unsaturated polyester
resins, and containing quartz dust as a filler. The main
technical characteristics of compounds grades AF and F,
which were found most suitable for cast insulation, are
given in Table 1. Compound AF has the higher strength but
the lower resistance to water. The electrical characteris-
tics of the compounds determined on sheets 2 - 4 mm thick

SOV/110-58-8-3/26

Cast-insulation based on Cold-hardening Unsaturated Polyester Resins

are displayed in Table 2. Both materials are of high electric strength, but a high dielectric loss at 80°C limits their field of application. Similar sheets were used in determining the influence of moisture on the electrical properties, and the change in power-factor on exposure to humid atmosphere is shown in Fig 1. The casting properties and general behaviour of the compound were tested by incorporating it in current-transformers of type TCh-2, for 2 kV, and TVLD-10, for 10 kV, as illustrated in Figs 2 and 3 respectively. The first of these was developed by Engineers V.M. Barzilovich and S.I. Tamarchina and the second by Engineer N.I. Bachurin. The casting procedure was the same for both resins, using open moulds. A graph of the temperature in the thickness of the insulation of current-transformer type TVLD-10 (insulation weight 5 kg) during the process of hardening of the compound is shown in Fig 4. Even in the thickest layers of insulation the temperature-rise did not exceed 10 - 12°; thermal and shrinkage stresses are therefore negligible. Test results on current-transformers insulated

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SOV/110-7-1-3/26
Cast-insulation based on Cold-hardening Unsaturated Polyester Resins

Results are given in Fig 3. After prolonged exposure to high humidity, the insulation resistance of current-transformer type TVLD-10 is reduced but still remains fairly high. Current-transformer type TCh2 was tested for resistance to frost at -50°C, and also for resistance to shock and vibration. The results were satisfactory. Curves of insulation power-factor as functions of voltage and temperature measured on current transformers type TVLD-10 are given in Figs 5 and 6. The results obtained show that the electrical properties of polyester insulation are satisfactory for indoor electrical equipment for voltages of 0.5 - 3 kV.

There are 3 tables, 6 figures, and 9 references, 8 of which are Soviet, 1 English and 1 German.

SUBMITTED:

March 10, 1958

1. Electric insulation--Processing
2. Electric insulation--Materials
3. Resins--Applications

Card 3/3

MEDEVEDOVA, P. A.

16

Distr: LE4j/LE2c(j)

Cast unsaturated polyester resins hardened in the cold.
P. K. Gavurin, P. A. Medvedeva and Sh. G. Yankov.
~~Zhur. Prikl. Khim.~~ ~~St. 110-24(1958).~~ ~~Poly-~~
~~ethylene glycol maleic ester~~ of naphthene, adipic, sebacic,
and other acids were polymerized at 100-200° in a current of
N or CO₂ and copolymerized with styrene, methyl

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"APPROVED FOR RELEASE: 07/12/2001

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i. Bencharitz

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APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033310013-6"

5(3)

SOV/80-32-4-27/47

AUTHORS: Gavurina, R.K., Medvedeva, P.A., Yanovskaya, Sh.G. and Granova, Z.A.

TITLE: The Polymerization of Styrene in the Presence of 1-Oxy-1'-hydroperoxide-dicyclohexylperoxide and Cobalt Naphthenate (Polimerizatsiya stirola v prisutstvi 1-oksi-1'-gidroperekisiditsiklogeksil-perekisi i naftenata kobal'ta)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 4, pp 857-863 (USSR)

ABSTRACT: The polymerization of styrene was studied by a number of investigators, in particular by Dolgoplosk and Tinyakov [Refs 7, 8]. The study of this process in the presence of the agents cited in the title presents a special interest because of its wide application in the technology of copolymerization of unsaturated polyester resins. The investigation of the kinetics of styrene polymerization was conducted by the authors by means of the dilatometric method and by polymerization in ampoules, in case of high conversion. Nitrogen, purified from oxygen, served as a medium. Three series of experiments at temperatures of 25; 38.4 and 56.4°C were carried out while applying the method of polymerization in dilatometers. Kinetic curves obtained in these experiments are shown in Figures 1 - 3.

Card 1/3 The study of kinetic curves at higher conversions was carried out

SOV/80-32-4-27/47

The Polymerization of Styrene in the Presence of 1-Oxy-1'-hydroperoxide-dicyclohexylperoxide and Cobalt Naphthenate

at a temperature of 38.4°C. Conclusions drawn from these experiments are as follows: 1. The system consisting of 1-oxy-1'-hydroperoxide-dicyclohexylperoxide and cobalt naphthenate manifests its activity in styrene polymerization at low temperatures, 25 to 56°C; 2. The introduction of cobalt naphthenate leads to an increase in the initial polymerization rate, R_0 . With increasing cobalt concentration, $\frac{R_0}{[Co]}$ also increases. The functional relationship between R_0 and $\frac{R_0}{[Co]}$ is linear. With polymerization progressing, its rate is noticeably reduced, which is more pronounced at the higher concentration of cobalt naphthenate; 3. The characteristic viscosity of solutions of the polymers obtained, η , decreases in the region of low conversions but sharply increases in the region of high conversions, when cobalt naphthenate is added. With increasing concen-

Card 2/3

SOV/80-32-4-27/47

The Polymerization of Styrene in the Presence of 1-Oxy-1'-hydroperoxide-dicyclohexylperoxide and Cobalt Naphthenate

tration of cobalt naphthenate, η also rises.
There are 7 graphs, 3 tables and 14 references, 2 of which are Soviet, 3 German, 8 English and 1 Japanese.

SUBMITTED: January 31, 1958

Card 3/3

5(3)

SOV/80-32-5-28/52

AUTHORS: Gavurina, R.K., Medvedeva, P.A., Yanovskaya, Sh.G., Visleneva, L.O.

TITLE: The Polymerization of Styrene in the Presence of 1,1'-Bishydroperoxidedicyclohexylperoxide and Cobalt Naphthenate

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 5, pp 1086-1091 (USSR)

ABSTRACT: The work is a continuation of [Ref 1]. The polymerization was measured by the dilatometric method and in ampoules. The concentration of 1,1'-bishydroperoxidedicyclohexylperoxide (HPC-1,1') was kept constant at 0.8 mole/l, the quantity of cobalt naphthenate (CN) varied from $0.058 \cdot 10^{-3}$ to $5.8 \cdot 10^{-3}$ mole Co/l. The experiments were made at 25, 38.4 and 56.4°C. The introduction led to a noticeable increase in the initial rate of polymerization R_0 . Figure 4 shows R_0 as a function of the square root of the cobalt concentration. At the increase of conversion the polymerization rate decreases. The minimum duration of the process is observed at the highest concentration of CN. In the polymerization in ampoules a high polymerization rate is observed even at a conversion of 90-85 weight %, in some cases at 100%. At high degrees of polymerization the addition of CN leads to a considerable increase of the viscosity $[\eta]$. Comparison of

Card 1/2

SOV/80-32-5-28/52

The Polymerization of Styrene in the Presence of 1,1'-Bishydroperoxidedicyclohexylperoxide and Cobalt Naphthenate

1-oxy-1'-hydroperoxidedicyclohexylperoxide (HPC-1) and HPC-1,1' shows that the rate of the process decreases more rapidly with the first substance at increasing conversion. A conversion of 19 weight % is obtained with HPC-1 after 29 hours, with HPC-1,1' after 4 hours. For all temperatures R_0 is higher for HPC-1,1', if no CN is added. The addition of CN shows clearer results, however, with HPC-1. HPC-1,1' ensures a higher conversion, if all other conditions are equal. There are: 8 sets of graphs, 4 tables and 4 references, 1 of which is Soviet, 1 German, 1 American and 1 Japanese.

SUBMITTED: March 24, 1958

Card 2/2

L 16199-63 ~~ERR/EMP(j)/EPF(c)/EMT(m)/BDS/BS(s)-2--AFPTG/ASD/SSD--~~
~~Ps-4/Pc-4/Pr-4/Pt-4--RM/WW/MAY~~
 ACCESSION NR: AP3006534 8/0191/63/000/009/0017/0019

AUTHOR: Medvedeva, P. A.; Ry*bkina, O. Ya.; Duntova, L. K.;
 Gavrilova, G. A.; Gavrilina, R. K. 88 82

TITLE: Self-extinguishing glass-reinforced plastics based on
 epoxy-polyester resins

SOURCE: Plasticheskiy massy*, no. 9, 1963, 17-19

TOPIC TAGS: glass fabric reinforced plastic, binder unsaturated
 polyester, unsaturated polyester resin, TKhF, ChF, AF, styrenated
 polyester, epoxy resin, ED-5, ED-6, self-extinguishing, chlorine-
 containing polyester, chlorine-containing curing agent, reinforce-
 ment, satin weave glass fabric, glass fabric, ASTT(b)S₂'-5/3',
 ASTT(b)S₂-8/3, organosilicon finish, GVS-9 finish, coupling agent,
 glass fabric lay-up, antimony oxide, mechanical strength, bending
 strength, thermal stability, moisture effect, temperature effect,
 moisture, temperature

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L 16199-63

ACCESSION NR: AP3006534

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ABSTRACT: Self-extinguishing glass-fabric-reinforced plastics have been prepared with mixtures of epoxy and unsaturated polyester resins as binders. Self-extinguishing properties were imparted by introducing chlorine into the polyester [method unspecified] or by using a chlorine-containing curing agent [unspecified]. Styrenated TKhF, ChF , or AF polyesters and ED-5 or ED-6 epoxy resins, mixed in various ratios (generally 2 parts polyester to 1 part ED-5), were used as binders; satin-weave fabrics ASTT(b) S_2 -5/3, ASTT(b) S_2 -8/3, or ASTT(b) S_2 -8/3 finished with the GVS-9 organosilicon coupling agent, served as reinforcements. The glass-fabric sheets were laid up at right angles to each other to impart multidirectional strength to the plastic. 3.5-4.5% Sb_2O_3 was added to the binder. The results of a study of the properties of the plastics, given in the form of tables, show that glass-fabric-reinforced plastics thus prepared are self-extinguishing. They exhibit high mechanical strength (binding strength $\sigma_B = 3800-4400 \text{ kg/cm}^2$) and high thermal stability. The strength of these plastics (especially of those reinforced with ASTT(b) S_2 -8/3 GVS-9) drops only slightly under the effect of moisture ($\sigma_B = 3280-4200 \text{ kg/cm}^2$) and temperatures up to 60C ($\sigma_B = 3200-4000 \text{ kg/cm}^2$). Orig. art. has: 5 tables.

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